Application No.: 10/519,851 Amendment Dated: April 6, 2009

Reply to Office Action of: January 16, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1. (Currently Amended) A reproducing apparatus comprising:
- a reproducing unit that extracts a recorded-video signals-signal from a recording medium in which (1) said-video signals that have same contents but are compressed in a plurality of different bit rates, and (2) record management information that denotes a mutual association between said video signals that have the same contents but are compressed in a plurality of different bit rates, are recorded, respectively;
- a decoding unit that decodes any of said video signals signal extracted from said recording medium; and
- a recording unit that records, in correspondence to said record management information, reproduction management information including reproduction-interruption information for defining a point of interruption in time when a user interrupts a reproduction of said video signals from said recording medium,

wherein said video signals are decoded according to a selected bit rate of said plurality of different bit rates from said point of interruption in time.

- 2. (Previously Presented) The reproducing apparatus according to claim 1, wherein said recording unit records said reproduction management information on said recording medium.
- (Previously Presented) The reproducing apparatus according to claim 1, 3 further comprising a built-in flash memory,

wherein said reproduction management information is recorded on said flash memory.

Application No.: 10/519,851
Amendment Dated: April 6, 2009
Reply to Office Action of: January 16, 2009

- 4. (Previously Presented) The reproducing apparatus according to claim 3, wherein said reproducing unit further extracts said reproduction management information from said flash memory, and based on said record management information and said reproduction management information, extracts, from said recording medium, said video signals after said video signals corresponding to said reproduction-interruption information included in said reproduction management information.
- (Previously Presented) The reproducing apparatus according to any one
 of claims 1 to 4, wherein said reproduction-interruption information concerns elapsed
 time from start of reproduction of said video signal.
- 6. (Previously Presented) The reproducing apparatus according to claim 3, wherein said recording unit further records, in correspondence to said record management information and said reproduction management information, identification information of said recording medium on said flash memory.
 - 7. (Previously Presented) The reproducing apparatus according to claim 6.

wherein said reproducing unit further extracts said record management information, said reproduction management information, and said identification information of said recording medium,

any of said video signals extracted from said recording medium is suitable for said reproducing unit and/or said decoding unit, and

said reproducing unit, based on said record management information, said reproduction management information, and said identification information of said recording medium, further extracts, from said recording medium, said video signals after said video signals corresponding to said reproduction-interruption information included in said reproduction management information.

 (Previously Presented) The reproducing apparatus according to claim 1, wherein said video signals are compressed in a plurality of different conditions including any one of different numbers of pixels and different compression methods.

Application No.: 10/519,851
Amendment Dated: April 6, 2009
Reply to Office Action of: January 16, 2009

- 9. (Previously Presented) The reproducing apparatus according to claim 1, wherein said video signals that have the same contents but are compressed in a plurality of different bit rates are recorded on said recording medium so that each of said video signals can be continuously reproduced.
- 10. (Previously Presented) The reproducing apparatus according to claim 1, wherein said video signals that have the same contents but are compressed in a plurality of different bit rates are recorded respectively in continuous data areas, each of which has size that is equal to or larger than a predetermined size.
- (Previously Presented) The reproducing apparatus according to claim

wherein said recording medium is an optical disc, a magneto-optical disc, or a magnetic disc,

said reproducing unit has a head for reading a video signal from said recording medium, and

said predetermined size is expressed by the following equation:

(equation 1)

Vo×Tj×Vr/(Vr-Vo)

(Vo: data transfer rate to said decoding unit (Mbps), Tj: maximum seek time of said head (second), Vr: data-reading rate of each of said video signals from said recording medium by said head (Mbps)).

12. (Currently Amended) The reproducing apparatus according to claim 1,

wherein said video signals that have the same contents but are compressed in a plurality of different bit rates are recorded respectively in continuous data areas, each of which has size that is equal to or larger than a predetermined size, and

said continuous data areas are recorded—in a form of being repeatedly alternately arranged.

Application No.: 10/519,851 Amendment Dated: April 6, 2009

Reply to Office Action of: January 16, 2009

13. (Previously Presented) The reproducing apparatus according to claim 10 or 12, wherein said video signals compressed in a plurality of different bit rates that are recorded in said continuous data areas, each of which has size that is equal to or larger than said predetermined size, have same reproduction time.

- 14. (Previously Presented) The reproducing apparatus according to claim 12, wherein said decoding unit further decodes said video signals compressed in a plurality of different bit rates that are extracted from said recording medium.
- 15. (Previously Presented) The reproducing apparatus according to claim 8, wherein said different compression methods are MPEG2 and MPEG4, respectively.
 - 16. (Currently Amended) A recording apparatus, comprising:

a recording unit that records, on a recording medium, video signals that have same contents but are compressed in a plurality of different bit rates, and record management information that denotes a mutual association between said video signals that have the same contents but are compressed in a plurality of different bit rates:

a reproducing unit that extracts a video signal recorded on said recording medium: and

a decoding unit that decodes said video signal extracted from said recording medium,

wherein said recording unit records said video signals that have the same contents but are compressed in a plurality of different bit rates, respectively, in continuous data areas, each of which has size that is equal to or larger than a predetermined size, and records that said continuous data areas on said recording medium are in a form of being repeatedly alternately arranged.

17. (Previously Presented) The recording apparatus according to claim 16,

wherein said recording medium is an optical disc, a magneto-optical disc, or a magnetic disc,

10/519.851 Application No.: Amendment Dated: April 6, 2009

Reply to Office Action of: January 16, 2009

said reproducing unit has a head for reading a video signal from said recording medium, and

said predetermined size is expressed by the following equation:

(equation 1)

Vo×Ti×Vr/(Vr-Vo)

(Vo: data transfer rate to said decoding unit (Mbps), Tj: maximum seek time of said head (second), Vr: data-reading rate of each of said video signals from said recording medium by said head (Mbps)).

18.-19. (Cancelled).

(Currently Amended) A reproducing method, comprising the steps of: 20.

extracting a recorded-video signals-signal from a recording medium in which (1) said video signals that have same contents but are compressed in a plurality of different bit rates, and (2) record management information that denotes a mutual association between said video signals that have the same contents but are compressed in a plurality of different bit rates, are recorded, respectively;

decoding any of said video signals signal extracted from said recording medium: and

recording, in correspondence to said record management information, reproduction management information including reproduction-interruption information for defining a point of interruption in time when a user interrupts a reproduction of said video signals from said recording medium,

wherein said video signals are decoded according to a selected bit rate of said plurality of different bit rates from said point of interruption in time.

(Previously Presented) The reproducing method according to claim 20, 21.

wherein the step of recording, in correspondence to said record management information, said reproduction management information means a step of recording, in

Application No.: 10/519,851 Amendment Dated: April 6, 2009 Reply to Office Action of: January 16, 2009

correspondence to said record management information, said reproduction management information on a flash memory,

the reproducing method further comprising the steps of:

extracting said reproduction management information from said flash memory, and

based on said record management information and said reproduction management information, extracting, from said recording medium, said video signals after said video signals corresponding to said reproduction-interruption information included in said reproduction management information.

22.-25. (Cancelled).

26. (Currently Amended) A recording method, comprising the steps of:

recording, on a recording medium, video signals that have same contents but are compressed in a plurality of different bit rates, and record management information that denotes a mutual association between said video signals that have the same contents but are compressed in a plurality of different bit rates;

extracting a video signal recorded on said recording medium; and

decoding said video signal extracted from said recording medium,

wherein said video signals that have the same contents but are compressed in a plurality of different bit rates, respectively, are recorded in continuous data areas, each of which has size that is equal to or larger than a predetermined size, and saidso that said continuous data areas are recorded on said recording medium are in a form of being repeatedly alternately arranged.

27. (Cancelled).